

16 BIT FULL DUPLEX / 3D STEREO SOUND CARD

USER MANUAL

Version #233X/004/1097
P/N #73-23381140-000



INTRODUCTION

The **ES1869/ES1869+WAVE** sound card is a 16-bit full duplex sound card based on the **ES1869/ES1869+WAVE** AudioDrive integrated digital sound controller chip, it is compatible with Sound Blaster PRO and provides an integrated audio solution for business audio, education/entertainment sound and multimedia applications.

NOTE : It is recommended to use ACTIVE SPEAKER in order to activate your sound card properly.

FEATURES

- ◆ 16-bit full duplex stereo sound
- ◆ Record, compress and playback voice, sound and music simultaneously
- ◆ Integrated 16-bit A/D and D/A converters
- ◆ Integrated 3D spatializer audio effect
- ◆ 20-voice 72 operator FM music synthesizer
- ◆ Supports ADPCM decompression engine
- ◆ MPU-401 compatible MIDI interface
- ◆ Connectors for MIC in, Line in, Line out, Speaker out and Wavetable connector
- ◆ Independent sampling rate up to 44.1kHz for recording and playback
- ◆ Software volume control for recording and playback
- ◆ Built-in 2 watts per channel stereo power amplifier
- ◆ Game port for dual joystick or MIDI device
- ◆ Advanced power management features
- ◆ Full ISA Plug and Play features
- ◆ Compliant to PC'97 Rev 1.0

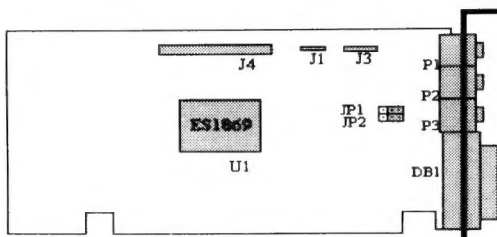
Additional features on ES1869+Wave version

- ◆ Support on-board Hardware Wavetable
- ◆ 32 voice polyphony
- ◆ Support General MIDI instrument set - 128 melodic and 47 rhythm instruments
- ◆ Sampling Rate : 44.1kHz
- ◆ Stored with 1MB digitally recorded high fidelity sound samples

WHAT IS IN YOUR PACKAGE

- ◆ **ES1869/ES1869+WAVE** sound card
- ◆ **ES1869/ES1869+WAVE** driver disks x 2
- ◆ **ES1869/ES1869+WAVE** User Manual
- ◆ Willowpond utility disk (optional)
- ◆ Willowpond Utility Manual (optional)

JUMPERS AND CONNECTORS



LAYOUT OF ES1869/ES1869+WAVE SOUND CARD

P1	MIC In Connector
P2	Line In Connector
P3	Speaker Out / Line Out Connector
DB1	Game Port Connector
J1	CD Analog Input 1 Connector
J3	CD Analog Input 2 Connector
J4	Wavetable Connector
*JP1 & JP2	Jumpers for output choices
*JP3	Jumper for MIC compatibility

***JP1 & JP2 - Jumpers for output choices:**

To suit the requirements of different types external speaker, you can set the jumpers of JP1 & JP2 to choose the method of audio signal output. The factory default setting is 1-2 which enables the on-board amplifie, and this is best suited for use with external PC Speaker Systems. However, should you wish to connect the sound card to self-powered devices (e.g. Hi-Fi systems, or an external amplifier), please use the 2-3 setting which disables the on-board amplifier and sends the audio signal directly to your external device for amplification.

***JP5 - Jumper for MIC compatibility:**

To suit the compatibility requirements of various types of microphone in the market, we have added in a jumper setting at location 'JP5' to make it more user-friendly for end-user. The default jumper is 'OPEN' which is good for the most common type of microphone in the market. However, should you experience problems working with your microphone, then please change the jumper setting to 'CLOSE'.

SOFTWARE DRIVER INSTALLATION

DOS and Windows 3.1 Driver Installation

1. After entering Windows 3.1, choose **"Run"** from the File Menu of the Program Manager.
2. Insert the **ES1869/ES1869+WAVE** driver disk #1 into your floppy drive(e.g. Drive A), select **[Run]** from the Program Manager's File menu and type **"A:\WIN31\SETUP"** on the command line, then click on the **"OK"** button.
3. A Welcome dialog box will appear, click the **"Continue"** button to start the installation.
4. Click the **"Driver Installation"** button.
5. Then click the **"Reboot System"** button.
6. Now the system restarts with the sound card driver, you have finished the DOS & Windows 3.1 driver installation.

Windows 95 Driver Installation

<i>Note : Install the Sound Card onto the motherboard only after the Windows '95 operating system software has been installed correctly to your system.</i>

1. Install the **ES1869/ES1869+WAVE** sound card on the motherboard, and power on the system.
2. During the Windows 95 boot procedure, new hardware will be detected.
3. Select the "Driver from disk provided by hardware manufacture" item, and click the **"OK"** button. Windows 95 will prompt an "Install From Disk" dialog box.
4. Insert the **ES1869** Driver disk #2 into your floppy drive and type **"A:\WIN95"** in the dialog box, then click the **"OK"** button.
5. Continually, should the system require copying corresponding files from Windows 95 CD-ROM, then you will need to insert your Windows 95 CD into CD-ROM drive, and enter the appropriate path such as **"D:\WIN95"**.
6. After Windows has finished copying the necessary files, then a "New Hardware Found" dialog box will appear for gameport joystick.
7. Select the "Windows default driver" item, and click **"OK"** button to complete the game port driver installation.
8. Subsequently, Windows 95 will boot with the **ES1869/ES1869+WAVE** Windows 95 driver. To verify this, go to the "Control Panel" and double click on the "System" icon. Open "Device Manager" and click on "Sound, video & game controllers" to view the installed drivers. By double clicking on the individual driver's information line, this will open a "Properties" box that will tell you whether the driver is working correctly or not.

SOFTWARE DRIVER INSTALLATION

Software Wavetable Driver Installation

To enhance your sound card performance, you may now download the 'Software Wavetable Drivers' from our web site address "<http://www.mmcd.com/driver.htm>". Please refer to 'Readme.txt' file for installation details.

IMPORTANT !!

Install the sound card onto the motherboard only after the Windows '95 operating system software has been installed correctly to your system.

i) if you are using Win95, you are required to install 'Direct X' driver first before installing the Software Wavetable driver

- download 'Direct X' from web site (as above)
- then install the Software Wavetable driver

ii) if you are using Win950B or Win95OSR2

- you may install the Software Wavetable Driver directly as 'Direct X' is already included.

For new users

If this is the first time you install the sound card, please follow this procedure

1. Install the sound card in an appropriate slot.
2. Power up the system, when prompted for the driver, redirect the system to look for the appropriate drivers in C:\ESSWT .
3. You can now verify the presence of the software wavetable from System Properties.

For existing users

If you have already installed the sound card, to upgrade the 'Software Wavetable', please follow this procedure

1. Go to "System Properties", select "Device Manager"
2. Go to "Sound, video and game controllers", select "ES1869 Plug and Play Audio Drive"
3. Go to "Properties", go to "Driver", select "Update Driver"
4. Select "Next" to allow the system to search for the driver(s)
5. Select "Other locations", type in "C:\ESSWT". Select "OK", "Finish"
6. If you are prompted for a driver disk, key in "C:\ESSWT" for all the files to be copied .
7. Close System Properties, reboot the system.
8. You can now verify the presence of the software wavetable from System Properties.

TROUBLESHOOTING

Problem: **No sound During Normal Usage:**

Solution A: Audio accessories improperly connected. Check all audio accessories are plugged into the proper connectors.

Solution B: Volume control adjustment. Make sure that the volume control is not set too low.

Problem: **No Visual Activity on Volume Meter:**

Solution A: DMA channel conflict. Check that no audio accessories are attempting to use the same DMA channels, and change DMA channels accordingly. Check this by viewing the properties of the audio device(s) in the Control Panel - System - Device Manager - Sound, Video & Game Controllers - Properties - Resources.

Solution B: The *ES1869* driver is removed. Install its Windows 3.1 driver again.

Problem: **No sound or receive error messages during Windows starts:**

Solution A: Another Sound Card driver is installed. If you install more than one sound driver in windows, a conflict may arise. To solve this problem, you should remove all unnecessary drivers, and reinstall the *ES1869* driver. (Sound card drivers are usually stored in the "system" folder (a sub-directory of the "windows" or "win95" folder).

Solution B: The *ES1869* driver is removed. Install the Windows 3.1 driver again.

Problem: **No sound in Windows 95:**

Solution A: Configuration problem. You should check the configuration by viewing the "properties" & "resources" of the sound card drivers (and other possible conflict item drivers) in Control Panel - System - Device Manager. See if all the drivers and utilities are working correctly, and reset any if necessary.

Solution B: Either the mother-board does not support PnP function or the PnP option of the motherboard's BIOS is not enabled. To clarify these, please contact your motherboard dealer or sales representative.

***** ATTENTION *****

UK Customers only !!!

For Technical Support on this product call

PCS Helpline

Tel: 0891-354400

Calls Charged at premium rate 50p per min.

